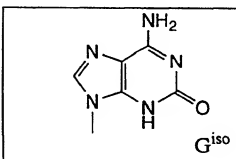
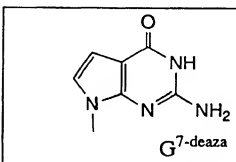
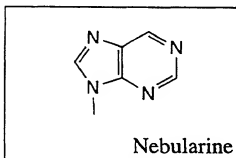
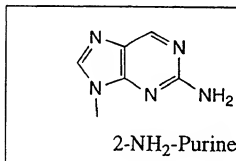
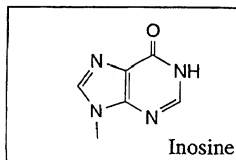


**Guanosine Modifications used in the study****FIG. 1A**

5'-NNNNNX1X2CGX3X4NNNNN-3'.

Abasic (1', 2'-deoxyribose)

Oligo 91-3 : X<sub>1</sub> = R, X<sub>2</sub> = A, X<sub>3</sub> = T, X<sub>4</sub> = T

Oligo 91-4: X<sub>2</sub> = R, X<sub>1</sub> = G, X<sub>3</sub> = T, X<sub>4</sub> = T

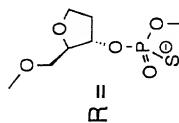


FIG. 1B-1

5'-NNNNNX1X2CGX3X4NNNNNN-3'.

Abasic (1,3-propanediol)

Oligo 109-4 : X<sub>1</sub> = R, X<sub>2</sub> = A, X<sub>3</sub> = T, X<sub>4</sub> = T

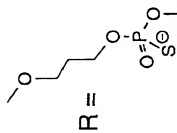


FIG. 1B-2

5'-NNNNNX1X2CGX3X4NNNNN-3'.

3-Nitropyrrole

Oligo **105-4** :  $X_1 = R$ ,  $X_2 = A$ ,  $X_3 = T$ ,  $X_4 = T$

Oligo **105-3**:  $X_2 = R$ ,  $X_1 = G$ ,  $X_3 = T$ ,  $X_4 = T$

$R =$

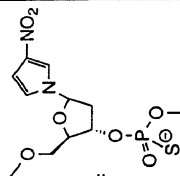


FIG. 1B-3

5'-NNNNNX1X2CGX3X4NNNNN-3'.

5-Nitroindole

Oligo 107-4 : X<sub>1</sub> = R, X<sub>2</sub> = A, X<sub>3</sub> = T, X<sub>4</sub> = T

Oligo 107-7: X<sub>4</sub> = R, X<sub>1</sub> = G, X<sub>2</sub> = A, X<sub>3</sub> = T

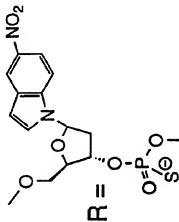


FIG. 1B-4

**1',2'-Dideoxyribose Substitution**

HYB No.	Sequences and Modification (5'-3')	Batch No.
HYB1158	CTATCTGAC <u>G</u> TTCTCTGT	D7-131-1
HYB1160	CTA <u>X</u> XTGACGTTCTCTGT	D7-131-12
HYB1161	CTATCTGAXGTTCTCTGT	D7-131-13

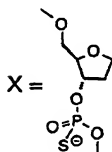


FIG. 2A

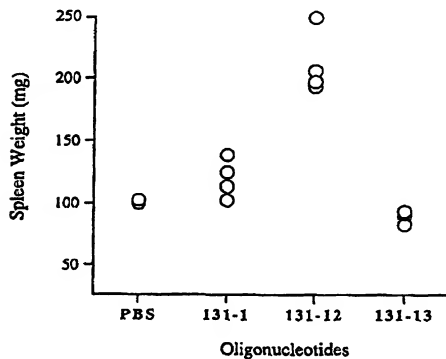


FIG. 2B

## 1',2'-Dideoxyribose Substitution

HYB No.	Sequences and Modification (5'-3')	Batch No.
HYB1159	CCTACTAGCGTTCTCATC	D7-133-1
HYB1162	CCTXXTAGCGTTCTCATC	D7-133-12
HYB1163	CCTACTAGXGTTCTCATC	D7-133-13

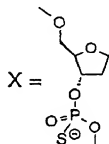


FIG. 3A

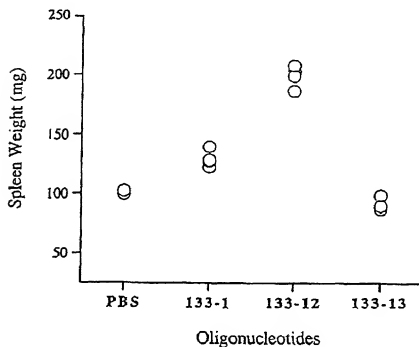


FIG. 3B